

**BY ORDER OF THE COMMANDER
434TH AIR REFUELING WING**

**434TH AIR REFUELING WING
INSTRUCTION 21-108**



16 FEBRUARY 2012

Maintenance

***FUNCTIONAL CHECK
FLIGHT/OPERATIONAL CHECK FLIGHT
AND TAXI PROCEDURES***

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements Air Force Policy Directive (AFPD) 21-1, *Air and Space Maintenance*. It establishes Functional/Operational Check Flight (FCF/OCF) and High Speed Taxi Check procedures to ensure proper coordination with the Maintenance Group (MXG) Commander, Quality Assurance (QA), Aircraft Maintenance Squadron (AMXS), Operations Group Commander (OGC), and Standardization and Evaluation Office (OGV). It applies to each of the above agencies and all personnel at Grissom Air Reserve Base (GARB) involved in the scheduling and performance of FCF/OCF and High Speed Taxi Checks. Additionally, information on In-flight Operational Checks is included. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, Management of Records, and disposed of in accordance with the Air Force Records Disposition Scheduled (RDS) located at <https://www.afirms.amc.af.mil>. The use of the name or rank of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

This is the initial publication of 434 Air Refueling Wing (ARW) Instruction (ARWI)21-108.

1. Responsibilities:

1.1. The Maintenance Group (MXG) and the Operations Group (OG) share in FCF, OCF, and High Speed Taxi Check responsibility and procedures. For the purpose of this instruction, the term FCF is meant to include High Speed Taxi Check.

1.1.1. The office responsible for management of the FCF, OCF and High Speed Taxi Check programs in the MXG is the Quality Assurance (QA) office. They will supervise

all FCF, OCFs and High Speed Taxi Checks in accordance with (IAW) the appropriate dash (-) six inspection requirements technical order, Technical Order (TO) 1-1-300 and other pertinent directives.

1.1.2. The office responsible for management of the FCF, OCF, High Speed Taxi Check programs in the OG is the OGV.

1.1.3. The OG/CC have designated the Chief of Standardization and Evaluation Office as the FCF Officer in Charge (OIC).

1.2. The OG/CC or equivalent will designate on the Letter of X's, authorized flight crews that are FCF/High Speed Taxi Check qualified and will authorize on a case by case basis those chosen to perform OCF's. OG OGV will be the Point of Contact (POC) for this letter.

1.3. Additionally the Air Refueling Wing Commander (ARW/CC) or MXG commander through QA and in coordination with the OG/CC may direct an FCF, OCF or High Speed taxi check be performed for conditions or maintenance actions not specified in the -six technical orders.

2. PROCEDURES: The following procedures and responsibilities apply in the performance of FCF, OCF and High Speed Taxi Checks.

2.1. Notification of an FCF, OCF and High Speed Taxi Check will begin with the performing maintenance organization supervisor contacting the AMXS Production Supervisor (Pro Super).

2.2. Pro Super will notify Plans and Scheduling Documentation (PS&D).

2.3. P&S will notify QA

2.4. QA will notify OGV, briefing them on the purpose of the FCF, OCF or High Speed Taxi Check.

2.5. OGV will coordinate and receive approval for flight from OG/CC.

3. FCF:

3.1. Accomplish FCF Checks only by an aircrew designated by the OG/CC as FCF qualified and supervised by the QA.

3.2. AMXS responsibilities are:

3.2.1. Tailor the FCF profile for the discrepancy causing the FCF.

3.2.2. Ensuring the aircraft preflight is complete and no open discrepancies exist that affect the airworthiness of the aircraft or the systems requiring the FCF.

3.2.3. Review the aircraft forms and complete the exceptional release by an individual identified on the special certification roster.

3.3. QA responsibilities are:

3.3.1. Verify the preflight inspection and that no open discrepancies exist, which affect the airworthiness of the aircraft or the systems involved in the FCF

3.3.2. Enter the write up in the aircraft forms and G081 for the FCF and the reason for accomplishment.

3.3.3. Review of the aircraft weight and balance documents.

3.3.4. Ensure AF Form 2400, *Functional Check Flight Log*, or an automated product is maintained to provide information for evaluation and analysis.

3.3.5. Coordinate with OGV for an FCF pilot/aircrew and provide OGV with the following information: aircraft tail number, reason for the FCF, and anticipated takeoff time. OGV will coordinate the FCF with scheduling.

3.3.6. Initiate an FCF checklist, T.O.1C-135-6CL-1, Series -135 Aircraft. **NOTE:** line non-applicable checklist blocks out or put “N/A” in red in those blocks.

3.3.7. Brief the flight crew on the previous maintenance problems and discrepancies recorded on the aircraft and/or system/equipment relating to the FCF.

3.3.8. Conduct the post flight debrief with the flight crew at the Maintenance Operations Center (MOC) when the mission is completed.

3.3.9. Ensure all G081 and aircraft form entries are completed.

3.3.10. Complete the Functional check flight log to indicate if aircraft was released for flight or any reason for non release, action taken and date completed. Also document date maintenance documents were forwarded to P&S.

3.3.11. Forward the checklist to PS&D for inclusion in the aircraft jacket file after a complete review.

3.4. The FCF Flight Crew is responsible for:

3.4.1. Ensuring flight crew specialties responsible for in-flight operation of systems to be evaluated are manned by designated FCF qualified individuals.

3.4.2. Be familiar with the requirements of T.O 00-20-1 and the inspection and procedural requirements of T.O.1-1-300, and applicable 1C-135- 6, 1C-135-6CF-1 and 1C-135-6CF-3. **NOTE: These technical orders are available for review at the QA during the briefing.**

3.4.3. Accomplish the FCF as briefed and in accordance with directives.

3.4.4. Entering all discrepancies in the aircraft forms in a clear and concise manner.

3.4.5. Complete FCF checklist, 1C-135-6CL-1 or 1C-135-6CF-3.

3.5. An FCF release occurs upon the successful completion of all requirements as determined by the FCF aircrew.

4. Operational Check Flights:

4.1. The OCF will be accomplished under FCF restrictions and conditions. Exception: OCF's must be flown by experienced crews as determined by the OG/CC and need not be FCF qualified.

4.1.1. The OCF will be performed in the same manner as the FCF with only portions of the 1C-135-6CL-1 being required for the OCF and non applicable items being marked as “N/A” or marked out.

4.2. OCF Documentation:

4.2.1. The OCF will be documented IAW T.O. 00-20-1. If the original write up cannot be referenced to the OCF as a result of previous transcription of forms, then a thorough description will be placed in the OCF discrepancy block.

4.2.2. When the OCF is complete the person that accomplishes it will enter in the corrective action block "OPS CK OK", initial over the symbol and sign the inspected by block.

4.2.3. If the OCF fails it will be signed off in the same manner as above as "OPS CK BAD". Enter the discrepancy in the next available block.

5. Taxi Checks:

5.1. All required High Speed Taxi checks will be completed under FCF conditions of paragraph 3 for safety purposes.

5.2. High speed taxi checks may be utilized instead of FCF flights with OG and MXG commander authorization, when maintenance ground operational check requires aircraft movement at higher than normal taxi speeds to operationally check completed maintenance. High Speed Taxi Checks will be accomplished by OG/CC designated FCF crew only.

5.3. To minimize brake and tire wear, configure aircraft with minimum fuel practical to accomplish any taxi check.

6. In-Flight Operational Checks.

6.1. In-flight Operational Checks will be accomplished IAW AFI 21-101. Maintenance will document the reason for the in-flight operational check in the aircraft forms; checks will generally be limited to verifying the normal operation of redundant or secondary aircraft systems. In-flight checks may be flown by any crew on any mission.

6.2. Questions regarding applicability of in-flight ops checks versus FCFs will be directed to OGV.

6.3. Document In-flight Operational Checks IAW paragraph 4 above or as directed by maintenance.

WILLIAM T. CAHOON, Col, USAFR
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 21 – 101, *Aerospace Equipment Maintenance Management*

AF Form 2400, *Functional Check Flight Log*

Technical Order (T.O.) 1C-135A-6, *Aircraft Scheduled Inspection and Maintenance Requirements*

T.O. 00-20-1, *Aerospace Equipment Maintenance Inspection Documentation, Policies, and Procedures*

T.O. 1-1-300, *Acceptance/Functional Check Flight and Maintenance Operational Checks*

T.O. 1C-135– 6, *Aircraft Scheduled Inspection and Maintenance Requirements*

T.O. 1C-135-6CF-1; *Acceptance and/or Functional Check Flight Procedures*

Manual

T.O. 1C-135-6CF-3

T.O. 1C-135-6CL-1, *Pilot's Abbreviated Functional Check Flight Checklist USAF Series -135 Aircraft*

T.O. 1C-135-6CL-3, *Boom Operator Acceptance and/or Functional Checkflight Checklist*

Abbreviations and Acronyms

AFI—Air Force Instruction

AF Form 2400—Air Force Form 2400, Functional Check Flight Log

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AMXS—Aircraft Maintenance Squadron

ARW—Air Refueling Wing

ARWI—Air Refueling Wing Instruction

CC—Commander

FCF—Functional Check Flight

IAW—In Accordance With

MXG—Maintenance Group

MOC—Maintenance Operations Center

N/A—Non-Applicable

OCF—Operational Check Flight

OG—Operations Group

OG/CC—Operations Group Commander

OGV—Standardization and Evaluation Office

OIC—Officer in Charge

PS&D—Plans and Scheduling Documentation

P&S—Plans and Scheduling

POC—Point Of Contact

QA—Quality Assurance

RDS—Records Disposition Scheduled

T.O.—Technical Order

Terms

G081— IMDS for Mobility

“OPS CK BAD”— Operational Check Bad

“OPS CK OK”— Operational Check OK

Pro Super— Production Supervisor